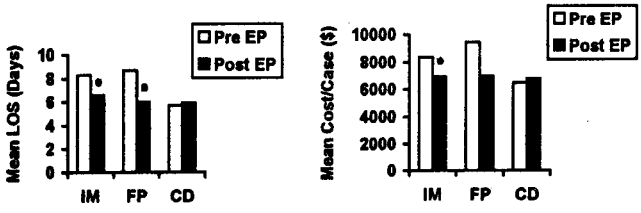
are provided in the figures:




*Conclusion:* CHF LOS and cost in patients cared for by FP/IM can be reduced by an intensive EP based on ACC/AHA guidelines.

## 977-158 Clinical Determinants of Outcome in Advanced Heart Failure: Insights from the PRAISE Trial

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Understanding the relationship between baseline prognostic characteristics and heart failure patients' risk of death can help clinicians determine the appropriate use of therapeutic strategies and facilitate the design of future clinical trials.

In the PRAISE Trial of advanced heart failure, 1,153 patients were randomized to receive Amlodipine vs placebo in addition to digitalis, diuretics and ACE inhibitors. Baseline characteristics with respect to survival status are shown below:

| Baseline Characteristics | Alive | Dead |
|---|---|---|
| Age (yrs.) (median IQ range) | 65 (57–72) | 67 (60–73) |
| Ischemic Etiology | 59% | 71% |
| NYHA Class IV | 15% | 26% |
| Blood Pressure (SBP) mm Hg | 120 (108–130) | 110 (100–124) |
| LVEF | 21 (17–25) | 20 (15–25) |

The independent predictors of outcome were: SBP ($x^2 = 41$), pulse pressure ($x^2 = 20$), cardiothoracic ratio ($x^2 = 19$), sodium level ($x^2 = 18$), low weight (kg) ($x^2 = 16$), NYHA Class ($x^2 = 15$), LVEF ($x^2 = 14$), etiology ($x^2 = 13$), race ($x^2 = 12$), MI hx ($x^2 = 12$), anti-arrhythmic drug hx ($x^2 = 9$), nitrate use hx ($x^2 = 7$), age ($x^2 = 6$), disease duration ($x^2 = 5$), and hypertension hx ($x^2 = 5$).

In conclusion, simple baseline clinical characteristics can discriminate high risk from low risk heart failure patients and thus, may help clinicians decide on the use of more aggressive therapies and the design of future clinical trials.

## 977-159 Contemporary Patterns of Practice and Outcomes in Congestive Heart Failure Patients Treated in a Specialized Clinic

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This study reports on the contemporary patterns of practice and outcomes in 566 consecutive patients referred to and followed up for an average of 518 ± 490 days in a specialized CHF clinic attended by specialized medical and nursing staff in a tertiary care hospital. Average age at initial presentation was 66 ± 14 years, 382 (68%) were male, 380 (67%) had ischemic heart disease, 441 (78%) had systolic and the rest (22%) diastolic dysfunction. At entry, 12% were in NYHA class I, 35% class II, 38% class III and 15% class IV. Medication used at last follow-up included ACE inhibitors (80%), loop diuretics (80%), digoxin (60%), nitrates (49%), aspirin (60%), warfarin (37%), betablockers (28%), calcium channel blockers (18%), amiodarone (7%) and magnesium supplement (9%). The most commonly prescribed ACE inhibitors were enalapril (61%, mean dose 10.7 mg/day), lisinopril (28%, 10.3 mg/day) and captopril (9%, 62.1 mg/day). Lifetable analysis showed one year survival rates to be 90% for NYHA class I, 86% for class II, 77% class III and 58% class IV. Two year survival rates were 84%, 79%, 66% and 34%, respectively. Multivariate logistic regression analysis revealed that increased mortality risk was associated with age >70 years (odds ratio [OR], 1.7, p = 0.01), NYHA class IV (OR 2.4, p = 0.01), serum creatinine >130 mmol/L (OR 2.5, p = 0.001) and systolic dysfunction (OR 2.1, p = 0.001). Betablockers were associated with decreased mortality risk (OR 0.4, p = 0.002) while metolazone (OR 2.3, p = 0.005) thiazides (OR 2.1, p = 0.05) and nitrates (OR 1.6, p = 0.03) were associated with increased mortality risk. Compared to historical data, e.g. the SOLVD Registry, these data suggest that treatment of patients with CHF can be enhanced in a special CHF clinic with associated improved outcome.

## 977-160 Patient Selection for Ventricular Remodeling Surgery: Evolving Criteria and Outcomes

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The left ventricular remodeling procedure (LVR) has been recently developed as a treatment for patients (pts) with congestive heart failure (CHF). Some centers have proposed that most etiologies of heart disease will respond and have reported perioperative mortality of ≥25%. We believed that patients with extensive coronary disease and prior infarction, irreversible myocyte damage (e.g., adriamycin toxicity), primary myocyte disorders and LV end diastolic diameter (LVIDd) < 7.0 cm would not be appropriate for LVR. Using these criteria, 17 patients, 11 male, mean age 50.2 years, have undergone LVR. Five patients were on chronic dobutamine pre-op, and 4 required inotropic support during anesthesia induction. Operative mortality is 0%, and there have been no deaths since the initial case was performed 105 days ago. The mean weight of LV mass resected was 78 ± 31 grams (38–136). Fourteen patients have been discharged. Two patients have required post LVR support with an LV assist device; one had normal coronaries but unrecognized remote infarction of the anteroseptal wall, and one sustained an infarct perioperatively. One patient was found to have active myocarditis after muscle resection and has required inotropic support. The remaining patients' cardiac pathology has shown myocyte hypertrophy and interstial fibrosis (IF). Outcome cannot be predicted on the basis of extent of IF. We believe that careful evaluation and selection criteria will define a patient population likely to benefit from the LVR.

## 977-173 Prognosis and Progression of Early Familial Dilated Cardiomyopathy: A 30 Month Prospective Study

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*Background:* A subset of patients with dilated cardiomyopathy (DCM) have familial disease. We prospectively assessed relatives with abnormalities suggestive of early disease.

*Method:* 408 asymptomatic relatives (mean age 35 ± 15, 193 male) of 110 DCM patients were assessed with non invasive cardiological assessment.

*Results:* 45 (20%) had LV enlargement (LVE ≥ 112% predicted), 13 (6%) had depressed fractional shortening (FS < 25%), 7 (3%) had established DCM, and the remainder were normal. Abnormal E/A ratio was found in 40 (68%) LVE and 60 (41%) normals. Relatives with LVE had lower E/A ratio, lower % fs and larger LA dimensions than normals (1.29 ± 0.72 vs 1.60 ± 0.71, p = 0.04), (33 ± 8 vs 35 ± 8, p = 0.003), (35 ± 5 vs 33 ± 5, p = 0.001), respectively. $VO_2$ max was abnormal in more LVEs compared to normals (4.9% vs 2.1%, p < 0.05). LVE with abnormal $VO_2$ % (<80%) had a lower absolute $VO_2$ max compared to normals (30 ± 7.8 vs 42.5 ± 9.1, p = 0.01). dFS's had larger LVDD% predicted (112 ± 13 vs 102 ± 7, p < 0.001), and lower RMS voltage (30 ± 8.9 mv vs 57.6 ± 39.6 mv, p = 0.05) than normals. Over 33 ± 60.8 months follow-up, 12 LVE (27%), 0 relatives with dFS, and 3 normal relatives (2%) developed DCM (p < 0.0001). Two relatives with LVE died. No parameter at initial presentation was predictive of disease progression.

*Conclusions:* 29% of asymptomatic relatives have echocardiographic abnormalities, of whom 27% have progressed to develop overt DCM. The other abnormalities also observed support the fact that these relatives have early disease.

## 977-174 Does Gender Have an Impact on Survival of Patients With Heart Failure? Findings From the SOLVD Registry

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The effect of gender on survival in patients with Heart failure (HF) and the interaction with LV systolic function have not been well delineated. In order to determine the effect of gender on long-term prognosis of patients with

| Characteristics | Males (n = 606) | Females (n = 179) | |
|---|---|---|---|
| NYHA I | 217 (36%) | 55 (31%) | NS |
| II | 290 (48%) | 92 (51%) | |
| III | 89 (15%) | 29 (16%) | |
| Pulmonary congestion | 139 (27%) | 45 (29%) | NS |
| LVEF > 45% | 156 (25%) | 68 (38%) | p < 0.001 |
| LVEF ≤ 45% | 461 (75%) | 113 (62%) | |
| Heart Rate (bpm) | 74.6 ± 14.2 | 78.1 ± 14.2 | p < 0.005 |
| Cardio Thoracic Ratio | 0.52 ± 0.07 | 0.56 ± 0.08 | p < 0.001 |